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NF97-324 Returning CRP Land to Crops: Cool-Season Grass Management/Cropping Suggestions

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Returning CRP Land to Crops

Cool-Season Grass Management/Cropping Suggestions

*by CRP to Crops Research Team**
Northeast Research and Extension Center

Control of Cool-Season Grass Vegetation

1. Plan
   - Scout entire CRP acreage. Assess percent of vegetative cover, vegetation composition (percent of grass, forbes, weeds), wildlife (gopher mounds, badger holes, etc.), topography, erosion (ditches, gullies, etc.), soil type, drainage.
   - Develop a conservation plan with Natural Resources Conservation and Service (NRCS) staff.
   - Take advantage of established grass vegetation for grass waterways, sediment filter strips along intermittent streams, wildlife strips, and tree planting for windbreaks (EC91-1767, *Windbreaks for Rural Living*; EC91-1772, *Windbreaks in Sustainable Agricultural Systems*; EC91-1771, *Windbreaks and Wildlife*).
   - Level rough areas of the field with light tillage, being careful to minimize vegetation disturbance.
   - Implement rodent control measures (G92-1110, *The Thirteen Lined Ground Squirrels: Controlling Damage*, and G88-887, *Controlling Vole Damage*).
   - Consider using a prescribed burn in late summer-early fall to help remove plant residue and stimulate regrowth (EC90-121, *Conducting a Prescribed Burn*). Remember to obtain permission from the appropriate authorities.

2. If allowed, shred vegetation in August or early September to remove old growth and stimulate regrowth.
   - Mow with rotary or flail-type shredder at a height of 6 to 12 inches to avoid creating a mat of residue on the soil surface.
   - If permission is not granted to shred in August or September, shred immediately after contract expiration.

3. Implement necessary perennial broadleaf weed control with the appropriate herbicide(s) before weed dormancy.
    - Apply herbicide(s) 2,4-D and/or dicamba (Banvel™) at appropriate rate for weed spectrum (EC97-130, *Herbicide Use in Nebraska*).
    - Certain perennial weeds such as common milkweed, hemp dogbane, and alfalfa become dormant after a frost; others such as Canada thistle, field bindweed, and dandelion will tolerate much colder temperatures and application can be delayed. Control must be achieved before weeds become dormant.

4. Kill grass vegetation and perennial broadleaf weeds with fall herbicide application.
    - Let grass vegetation grow until regrowth reaches 6-8 inches.
    - Apply herbicide containing glyphosate (Roundup™, etc.) for grass control. Add herbicide containing 2,4-D and/or dicamba (Banvel) to control specific perennial broadleaf weeds (EC97-130, *Herbicide Use in Nebraska*).

5. Sample and test soils for P, K, Zn, S (in sandy soils), pH, and organic matter (G91-1000, *Guidelines for Soil Sampling*).

6. If needed, lightly disk in late fall to level rough areas due to small mammal burrows or uneven grass stands. Wait at least three weeks after herbicide application.

7. Scout fields for small mammals one month before planting. If more than five vole colonies are found, implement control measures.

Cropping Systems Suggestions

1. No-till. Follow suggestions on killing cool season grass vegetation.

    A. Soybeans. Research at the Northeast Research and Extension Center (NEREC) has shown that soybeans perform equally under tilled or no-till conditions in first year after CRP. Other factors related to soybean production:
        - Late planting allows for warmer soil under residue.
        - Soybeans, when inoculated properly, have fewer nutrient requirements.
        - Plant percent emergence was reduced under no-till. Overplant by 50 percent to insure adequate populations.
        - Soybeans have more herbicide options to control grass escapes. Effective post-emergent herbicides are available or herbicide tolerant soybeans can be planted.
        - Narrow rows have been successful at the NEREC and may provide additional weed control through early canopy closure. Cultivation is difficult in newly cropped no-till CRP so the early canopy closure is especially useful.
        - Soybeans are expected to enhance corn yields the following year.

    B. Corn. Research at NEREC has shown that corn yields are reduced about 15 bushels per acre under first year no-till production compared to plow. No-till corn was slot planted, producing conditions that were cooler and wetter than tilled conditions. Row cleaning equipment might reduce these effects and improve yields:
        - Increase nitrogen rate by 50 pounds over normal University of Nebraska recommendations.
        - Make sure previous grass is killed before planting since there are few herbicide options to control grass escapes in corn. Avoid cultivation since soil conditions might

make it difficult.
    - Plant percent emergence was reduced under no-till. Overplant by 30 percent to insure adequate corn population.

2. Tillage. Research showed that plowed ground produced higher yields than disked ground for corn and sorghum.
    - Disking before plowing made plowing easier and allowed for smaller clods to be broken with secondary tillage.
    - Corn yields were not affected by shredding, haying or leaving the CRP undisturbed before plowing.
    - If disking without plowing, vegetation needs to be killed with chemicals. Overplant crops at the same rate recommended for no-till.
    - Expect to disk three times after plowing to achieve a satisfactory seedbed.

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